

CLAIMS

WHAT IS CLAIMED IS:

5 1. A method of treating immunosuppression in a warm-blooded animal, comprising administering to the animal an amount of a composition selected from the group consisting of combretastatin A4, prodrugs thereof, and mixtures thereof, effective to enhance immune responsiveness without causing
10 vascular destruction.

 2. A method according to claim 1, comprising administering to the animal said amount of said composition and another agent for counteracting immunosuppression.
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 3. A method according to claim 2, wherein said other agent is a selective inhibitor of NOS.

 4. A method of treating a warm-blooded animal bearing a tumor, comprising
20 (a) subjecting the animal to immunotherapy to inhibit or kill tumor cells, while
 (b) administering to the animal an amount of a composition selected from the group consisting of combretastatin A4, prodrugs thereof, and mixtures thereof, effective to
25 enhance immune responsiveness.

 5. A method according to claim 4, wherein step (a) comprises subjecting the animal to immune stimulating therapy.
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 6. A method according to claim 5, wherein step (a) comprises subjecting the animal to immuno-gene therapy.

 7. A method according to claim 6, wherein step (a) comprises vaccinating the animal with tumor cells genetically modified to produce at least one cytokine that augments a cytolytic immune response.
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8. A method according to claim 4, wherein said composition is combretastatin A4.

5 9. A method according to claim 4, wherein said composition is administered in an amount insufficient to effect substantial destruction of tumor vasculature.

10 10. A method according to claim 4, wherein said composition comprises at least one of said prodrugs and wherein said one prodrug is a metal or amine phosphate salt of combretastatin A4.

15 11. A method according to claim 10, wherein said composition is combretastatin A4 disodium phosphate.

20 12. A method according to claim 4, wherein step (b) comprises administering to the animal said amount of said composition and another agent for counteracting immunosuppression.

25 13. A method according to claim 12, wherein said other agent is a selective inhibitor of NOS.

30 14. A method of treating a warm-blooded animal bearing a tumor and exhibiting tumor-induced immunosuppression, comprising subjecting the animal to immune-response-enhancing therapy while administering to the animal an amount of a composition selected from the group consisting of combretastatin A4, prodrugs thereof, and mixtures thereof, effective to reduce immunosuppression but insufficient to effect substantial destruction of tumor vasculature.